	Application No.	Applicant(s)
Notice of Allowability	10/020,414	DEROU-MADELINE ET AL.
	Examiner	Art Unit	
	Inder P. Mehra	2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *amendment dated 11/14/05.*.

2. ☒ The allowed claim(s) is/are *1,2,5-7,3-4 and 8 (Renumbered as 1-8 respectively)* .

3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some*   c) ☐ None   of the:

        1. ☒ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____.

DANG TON
PRIMARY EXAMINER

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of

        Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____.

DETAILED ACTION

1.   This office action is in response to amendment/request to office action dated: 11/14/05,

and subsequent interview dated 1/31/06. Based on this amendment, claims 1-8 are pending.

EXAMINER'S AMENDMENT

2.   An examiner's amendment to the record appears below. Should the changes and/or

additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR

1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the

payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with

Khaled Shami, Regd. No. 38,745 on 1/31/06.

The application has been amended as follows:

Replace claims 1-8, as follows:

1.   (Currently amended) An adaptive routing process of objects in a network
containing a plurality of network routers linked by links, each network router including M
incoming links, N outgoing links, internal and external queues, an M size routing buffer and a
processing module, and the each network router being linked with a routing table including
values relating to an estimation of a number of deflections undergone by each object at the start
of the network router for a given destination, the process including a first initialization stage for
value tables linked with the each network router and a recurrent processing stage of each
network link, the recurrent processing stage comprising:

    a)   detecting that at least one object has arrived on at least one network router

    b)   considering each network link and determining if there is the at least one object
           on the considered links

-     if there is the at least one object on a the considered link, moving the at least one object along the link for a unit of time

-     if there is not the at least one object on a the considered link, waiting for a unit of time

c)   considering each network router and for each of the considered network routers detecting the state of incoming links

-     if the presence of an object is detected on an incoming link and the destination thereof is the considered network router,then removing the detected object,

-     if no object whose destination is the considered network router is detected on the incoming links, then checking the state of the internal queue of the considered network router,

-     if the internal queue of the considered network router contains objects then transferring these contained objects in the routing buffer of the considered network router,

-     if the routing buffer of the considered network router is not full then verifying if any the objects are on standby in the external queue and filling the buffer with one or more of the objects on standby,

d)   allocating content of a the routing buffer on the outgoing links of the considered network router according to the linked routing table and dynamically estimating the number of deflections which objects will undergo on forward points of the considered network router to reach their destination,

e)   updating the linked routing table values to estimate the number of deflections undergone on a whole path by the objects.

2.   (Currently amended) The process according to claim 1, wherein, upon arrival of an the object at a destination router, said destination router sends to a preceding router an acknowledgement of receipt indicating an estimated number of deflections undergone by the object to reach the destination router.

3.   (Currently amended) The process according to claim 1 wherein steps c) to e) are carried out successively for the each network router.

4.   (Currently amended) The process according to claim 1 wherein steps c) to e) are carried out simultaneously for the each network router.

5.   (Currently amended) The process according to claim 2 wherein step c) consists of updating network routing tables by taking into account information contained in the acknowledgment of receipt sent by neighboring network routing tables.

6.   (Currently amended) The process according to claim 2 wherein steps c) to e) are carried out successively for the each network router.

7.   (Currently amended) The process according to claim 2 wherein steps c) to e) are carried out simultaneously for the each network router.

8.   (Currently amended) The process according to claim 4 wherein step c) consists of updating network routing tables by taking into account information contained in the acknowledgment of receipt sent by neighboring network routing tables.

Allowable Subject Matter

3.   Claims 1-8 are allowed.

REASONS FOR ALLOWANCE

4.   The following is an examiner's statement of reasons for allowance:

The prior art of record does not disclose or teach indirectly or directly the following

limitations in combination with other limitations of the claim.

As recited by claim 1,

"considering each network router and for each of the considered network routers

detecting the state of incoming links

- if the presence of an object is detected on an incoming link and the destination thereof is the considered network router, then removing the detected object,

- if no object whose destination is the considered network router is detected on the incoming links, then checking the state of the internal queue of the considered network router,

- if the internal queue of the considered network router contains objects then transferring these contained objects in the routing buffer of the considered network router,

- if the routing buffer of the considered network router is not full then verifying if any the objects are on standby in the external queue and filling the buffer with one or more of the objects on standby,

d)   allocating content of a the routing buffer on the outgoing links of the considered network router according to the linked routing table and dynamically estimating the number of deflections which objects will undergo on forward points of the considered network router to reach their destination,

e)   updating the linked routing table values to estimate the number of deflections undergone on a whole path by the objects".

Any comments considered necessary by applicant must be submitted no later than the

payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for

Allowance."

Conclusion

5.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Inder P. Mehra whose telephone number is 571-272-3170. The

examiner can normally be reached on Monday through Friday from 8AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Inder P Mehra
Examiner
Art Unit 2666

DANG TON
PRIMARY EXAMINER